

USSN: 09/732,123
 Atty. Docket: 10242
 Amdt. Dated November 24, 2003
 Reply to Office Action mailed June 24, 2003

REMARKS/ARGUMENTS

Upon entry of the claim amendments, Claims 1-9 and 11 will be all the claims pending in the application.

Applicant re-drafted Claim 1 in product-by-process form, consistent with the recitation in Claims 7 and 10, and the description at page 3 of the specification. Applicant also incorporated the subject matter of Claim 10 into Claim 7.

Claims 7-11 are presently withdrawn from consideration as being directed to a non-elected invention. Applicant, however, would like to point out that where an applicant elects claims directed to a product, and a product claim is subsequently found allowable, withdrawn process claims which depend from or otherwise include all the limitations of the allowable product claim may be rejoined (*see*, MPEP §821.04). Accordingly, Applicant respectfully requests consideration of rejoinder in the event a product claim is found allowable.

Applicant notes with appreciation the Examiner's indication in the Advisory Action mailed October 6, 2003, that the claimed invention has been structurally distinguished from the disclosure of U.S. Patent 6,022,902 to Koontz. In accordance with the Examiner's indication in the Advisory Action, Applicant amended the claims to reflect the direct contact between plasma and film in the present invention.

Furthermore, Applicant respectfully submits that the presently claimed invention is patentable over U.S. Patent 5,340,672 to Kubota, *et al.* ("Kubota") and publication JP 2208333 ("JP '333").

In this regard, Applicant directs the Examiner's attention to the fact that neither Kubota or JP '333 discloses or even suggests a plasma-treated film layer treated by the method steps recited in Claim 1. Kubota and JP '333 are both silent with the particular steps recited therein, including operating the plasma generating electrode at a higher power or frequency than the plasma attracting electrode.

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Applicant acknowledges that the determination of patentability of a product in a product-by-process claim is based on the product itself.

However, the structure or characteristic properties of the product implied by the process steps must be considered when assessing the patentability of a product-by-process claim over the prior art, especially where the manufacturing process steps impart distinctive characteristic properties to the final product. Such is the case with the present product-by-process claims.

The recited method for treating the claimed film layer with plasma yields a porous film layer that (i) has a pore volume fraction of at least 0.40 and (ii) has been plasma-treated to make the pore space thereof more hydrophilic and to provide the film layer with: (a) a receding contact angle for water of less than 35° and (b) a pore accessibility for water of at least 0.60.

By the Rule 132 Declaration filed in August of 2003, Applicant demonstrated that prior art plasma-treated films, such as Koontz's films treated with so-called Remote Plasma technology, do not necessarily possess the presently claimed properties. The evidence from the Declaration sufficiently establishes that prior art plasma-treated films as a whole do not necessarily possess the presently claimed properties.

In this regard, it is impossible to infer from the disclosures of Kubota and JP '333 that they have been treated with the same plasma discharge as that of the present invention. Kubota and JP '333 are silent with respect to the specific plasma-treating conditions recited in the present claims. For example, Kubota's description of Example 2 at column 21 merely indicates placing a film on an electrode plate and thereafter adjusting the system pressure and air flow rate. The film is said to have been irradiated with plasma at 50 W for 30 seconds. A step of operating the plasma-generating electrode at a higher power or frequency than the plasma-attracting electrode is not at all disclosed.


For the foregoing reasons, Applicant respectfully requests that the Examiner re-consider and withdraw the remaining prior art rejections.

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Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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